take action on HEDIS

Chlamydia Screening: A new HEDIS measure important to your members

Screening for *Chlamydia trachomatis*, the most common bacterial sexually transmitted disease in the U.S., is included as a HEDIS (Health Plan Employer Data and Information Set) 2000 measure. This HEDIS indicator measures the proportion of sexually active females between the ages of 15 and 25 who were screened for chlamydial infection annually. Annual routine testing of sexually active women is the best way to identify and subsequently treat women, since up to 75% of women with chlamydia have no symptoms of disease. Untreated chlamydia can result in pelvic inflammatory disease (PID), leading to infertility or ectopic pregnancy. Inexpensive, highly sensitive and specific screening tests are now available and permit urine to be used as the test specimen. Chlamydia testing is important for managed care for several reasons:

Chlamydia screening dramatically reduces costs of care in MCO

- When left untreated, up to 40% of chlamydia cases will develop into pelvic inflammatory disease (PID) at a cost of at least $1,167 per patient. The nation spends approximately $1.7 billion in direct and indirect costs for chlamydial infections each year.

- Seventy percent of the costs attributable to PID occur during the 12 months following infection.

- PID costs can be avoided — A randomized controlled trial of chlamydia screening and treatment in an HMO demonstrated a 56% reduction in the incidence of PID in the 12 months following the intervention.

Chlamydia is a problem in your population

- *Chlamydia trachomatis* is the most common bacterial STD in the U.S.; an estimated 3 million new cases of chlamydia occur each year.

- Multiple studies in health plans, OB/GYN offices, family medical practices, and other private practice settings have demonstrated 5% to 15% of women of reproductive age are infected with chlamydia.

- Based on reports to the federal Centers for Disease Control and Prevention, teenage girls are at greatest risk for chlamydial infection.
  - 15- to 19-year-old females represent 46% of infections.
  - 20- to 24-year-old females represent another 33%.

![Prevalence of Chlamydial Infections in Young Women](image)
Chlamydia screening results in healthier women and better pregnancy outcomes

- Of women with untreated chlamydia who develop PID, approximately 1 in 5 will become infertile, almost 1 in 5 will suffer from chronic pelvic pain, and nearly 1 in 10 will have an ectopic (tubal) pregnancy.\(^7\)
- A woman infected with chlamydia has a 3- to 5-fold increased risk of acquiring HIV infection.\(^8\) The lifetime cost of HIV infection is estimated to be $195,188.\(^9\)
- Chlamydia is one of the most common causes of eye infections and pneumonia in young infants; more than 50% of pregnant women with chlamydial infection will deliver an infected baby.

Untreated Chlamydia trachomatis

- **3-5 fold increased risk of HIV**
- **Neonatal Pneumonia & Conjunctivitis**
- **Up to 40%**
  - **Pelvic Inflammatory Disease**
    - **9%**
    - **Ectopic Pregnancy**
      - **17%**
    - **Chronic Pelvic Pain**
      - **17%**
    - **Infertility**
Testing and treatment issues for Chlamydia trachomatis infections in women

Testing Issues
Many different screening tests for Chlamydia trachomatis are currently available. Commonly known tests are chlamydia culture, DNA probe, and enzyme immunoassay (EIA). New, highly sensitive and specific nucleic acid amplification tests are the current state-of-the-art in chlamydia test technology. Until recently, the only option for a woman who wished to be screened for chlamydial infection was to undergo a pelvic examination, during which the clinician would swab her cervix to obtain a sample of epithelial cells. The swab was then transported to a laboratory, where it was processed according to manufacturers' test specifications. Results are usually available within 48 hours of receipt by the laboratory. Nucleic acid amplification technology permits urine as a test specimen, thereby avoiding a clinical pelvic exam for the patient. A brief review of advantages and disadvantages follows:

<table>
<thead>
<tr>
<th>Test</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
</table>
| Culture                     | • Specificity$^{10}$ nears 100%, thereby reducing the potential for false positive results | • Requires a skilled laboratorian, is labor-intensive, and expensive.  
  • Sensitivity$^{11}$ is about 80%                                        
  • Cervical specimens only                                                 |
| DNA Probe                   | • More stable transport of specimens                                       | • Cervical specimens only                                           |
  • Less expensive than culture                                             |
| EIA                         | • Less technically demanding than culture                                   | • Cervical specimens only                                           |
  • Less expensive                                                         |
| Nucleic acid amplification  | • 90% or greater sensitivity and specificity                               | • More expensive than DNA Probe or EIA                              |
  • Can use either urine or cervical swabs as specimens                     |

Tests with lower sensitivity may not identify those women who are actually infected, and who, if undetected, will progress to pelvic inflammatory disease without appropriate treatment. Tests with lower specificity will erroneously classify uninfected women as infected, often causing significant stress in relationships between a woman and her sex partner, as well as unnecessary treatment. Nucleic acid amplification tests combine high sensitivity and high specificity with the added ability to use urine or cervical swabs as specimens.

Treatment Issues
Once a woman is identified as infected, several challenges still remain. The first is the choice of treatment. The two first-choice treatment regimens are a single dose of azithromycin, or 7 days of doxycycline, twice a day. Azithromycin is more expensive than doxycycline, but compliance is assured because it is one-dose treatment. Providers must weigh the benefits of assurance that their patients are immediately treated with the downside of a more expensive medication.

continued on next page
The final challenges are counseling the patient and treating all sex partners, so that reinfection does not occur. It is important that the patient understand the likelihood that she will be reinfected unless all of her sex partners are free of chlamydial infection. For an in-depth discussion of counseling, or other information on STD prevention, the American Social Health Association (ASHA) publishes a series of brochures on women’s health, counseling and preventing STDs. These materials may be accessed at www.ashastd.org.

8Fleming DT, Wasserheit JN. From Epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. Sex Transm Inf 1999;75:3-17.
10Specificity is defined as, "...the probability of testing negative if the disease is truly absent..." by Hennekens CH, Buring JE, Epidemiology in Medicine. Little, Brown & Company, 1987, p. 332.
11Sensitivity is defined as, "the probability of testing positive if the disease is truly present..."; ibid.

CDC
Centers for Disease Control and Prevention

For more information, see http://www.cdc.gov/nchstp/stds/HEDIS.htm

Routine annual testing for chlamydia is supported by:
American Medical Association • American Academy of Pediatrics
• American College of Obstetricians and Gynecologists • American Social Health Association
• Centers for Disease Control and Prevention • U.S. Preventive Services Task Force

Printing supported by a grant from

The National
STD
Action
Plan

a service of
asha® The American Social Health Association
Research Triangle Park, North Carolina
(919) 361-8400